What is claimed is:

1.   A clock recovery device comprising:
       a number of sample components that obtain samples of a received NRZI
encoded serial data stream at a number of phases, respectively, wherein the
number of phases are successively offset throughout a bit time period and the
samples are obtained throughout the time period at the number of phases;
       a number of transition detectors corresponding to the number of obtained
samples that analyze consecutive data samples in order to identify transitions;
       a blocking component that blocks one clock phase which was possibly
selected for a prior transition from erroneously contributing to the final recovered
clock, and
       a select clock component that selects a clock phase according to the data
toggle phase and generates a selected clock.

2.   The device of claim 1, wherein the sample components are comprised of
D-type flip flops respectively clocked at one of the number of phases.

3.   The device of claim 1, wherein the number of obtained samples is 16.

4.   The device of claim 1, wherein the number of sample components are
arranged in a dual column configuration to mitigate metastability.

5.   The device of claim 1, wherein the transition detectors comprise an XOR
logic that generates a low value on a non-occurrence of a transition between two
associated successive samples and generates a high value on an occurrence of
a transition between two associated successive samples and a register that
maintains the generated value.

6.   The device of claim 1, wherein the transition detectors generate data toggles that indicate occurrence or non-occurrence of a transition for respective time periods.

7.   The device of claim 1, wherein the blocked possibly-selected clock phase is n+1, where n is a current phase with its data toggle set or high.

8.   A clock and data recovery system comprising:

a receiver that receives an NRZI encoded serial data stream having an associated frequency;

a phase generator that produces N phases of a clock signal that have an associated frequency of about the frequency of the received serial data stream, wherein the N phases are successively offset by (1/N) of a time period; and

a clock recovery component that identifies transitions in the received serial data stream, selects a clock phase from a first identified transition of a bit time, blocks one other selected clock phase, and selects a clock accordingly.

9.   The system of claim 8, further comprising:

a data recovery component that identifies transitions in the received serial data stream and obtains a recovered serial data stream based solely on the identified transitions.

10.   The system of claim 8, wherein the N phases are substantially evenly spaced.

11.   The system of claim 8, wherein N is equal to 8, 10, 11, 12 or 16 and the time period is equal to about 2.08333 ns.

12.   The system of claim 8, where the minimum value for N is set based on jitter, such that $N > 2 / (1 - (2 * jitter\_ratio))$ wherein the jitter_ratio is jitter rate expressed as a fraction.

13.   The system of claim 12, wherein the jitter is an estimated value.

14.   A clock recovery system comprising:

a number of phase components that respectively obtain data samples of an NRZI encoded serial data stream, identify transitions, set a toggle bit per transition, select a clock phase based on a prior phase toggle setting, use the preceding toggle to block the current clock phase, and generate a clock; and .

a clock selector that generates a recovered clock from the clocks generated by the number of phase components.

15.   The system of claim 14, wherein the respective phase components use a data toggle to block a stale clock phase selection.

16.   The system of claim 15, wherein jitter can cause the toggle bit for a new transition to be set one phase before the now-stale clock phase selected for the prior transition.

17.   The system of claim 14, wherein the clock selector obtains the recovered clock by a logical OR of the respective clocks generated by the number of phase components.

18.   A method of recovering data over a single time period comprising:

obtaining a number of data samples of a received NRZI encoded serial data stream according to a number of phase clocks;

analyzing consecutive data samples to identify transitions;

setting a toggle phase according to a first identified transition of a

current bit time;

blocking one subsequent phase from being selected as a clock; and

selecting a clock phase according to the toggle phase.

19.   The method of claim 18, further comprising generating a number of phase clocks successively and evenly offset throughout a time period.

20.   The method of claim 18, wherein analyzing consecutive samples comprises performing an exclusive-or operation on the consecutive samples.

21.   The method of claim 18, wherein the subsequent phase to be blocked immediately follows the phase on which the toggle was set for the new transition.

22.   The method of claim 18, wherein the clock phase is best selected to be N/2 phases after the toggle phase, where N is the total number of data samples, but can be some other number of phases after the toggle phase as long as the selected phase always falls between earliest and latest expected toggles.